CASEREVIEW

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IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:
Inpatient L5-S1 transforaminal lateral interbody fusion (TLIF) post spinal fusion L5 to S1 and spinal monitoring
Inpatient hospital length of stay three (3) days

A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION:
This physician is a Board Certified Orthopedic Surgeon with over 13 years of experience.

REVIEW OUTCOME:
Upon independent review, the reviewer finds that the previous adverse determination/adverse determinations should be:
☒ Upheld (Agree)
Provide a description of the review outcome that clearly states whether medical necessity exists for each of the health care services in dispute.

PATIENT CLINICAL HISTORY [SUMMARY]:
This claimant is a male who was injured on XX/XX/XX while working XX. He had to XX and felt a sharp pain in his back that was a stabbing shooting pain. Initially he was seen at XX and taken off work. He was then seen at XX where he was treated with therapy and injections. The injections were noted to have helped for weeks at a time, however the pain always returned.

On X/XX/XX, MRI of the Lumbar Spine: Impression: 1. There is a 4 to 5 mm focal central disc herniation present at L5-S1 contacting the anterior medial margin of the descending S1 nerve root on the left side and contributing to central spinal stenosis and bilateral neural foraminal stenosis at that level. 2. Lumbar hypolordosis may be due to spasm or positioning. 3. Desiccation of the discs at T10 thru T12 and L5-S1 associated with thinning of the discs at T10 thru L3 and L5-S1. 4. No evidence for acute spondylolysis or anterior spondylolisthesis. However, there is minimal retrolisthesis of L5 upon S1 by approximately 1mm. 5. Incidentally noted is a 2 mm broad-based disc protrusion present at T11-T12 at the margin of the film almost contacting the ventral conus. Consideration of dedicated images thru the thoracic spine may be useful in this patient exhibiting borderline central spinal stenosis at that level. 6. Normal marrow signal. 7. There is a 0.5 mm broad based disc protrusion at L4-5 narrowing the inner zones neural foramina about 2 percent on both sides.

On XX/X/XX, EMG/NCV Impression: 1. Abnormal study. 2. There is electrodiagnostic evidence of Left S1 Radiculitis, with membrane instability in multiple left lower extremity S1-innervated muscles. There is no evidence of denervation in any of the muscles tested. 3. There is no electrodiagnostic evidence of a tibial or peroneal mononeuropathy, lumbosacral plexopathy, myopathy, or peripheral polyneuropathy. 4. There is clinical evidence of lumbar facet arthropathy.

On XX/XX/XX, Procedure Note: Post Op Diagnosis: 1. Lumbar Radiculitis. 2. Low Back Pain. Procedure: 1. Fluoroscopically guided Left L5/S1 transforaminal ESI. 2. Use of fluoroscopy for accurate needle placement and localization of the neural foramina.

On XX/XX/XX, Procedure Note: Post Op Diagnosis: 1. Low Back Pain. 2. Lumbar spondylosis. 3. Lumbar Facet Syndrome. Procedure: 1. Fluoroscopically guided right L3 medial branch nerve block. 2. Fluoroscopically guided right L4 medial branch nerve block. 3. Fluoroscopically guided right L5 medial branch nerve block. 4. Use of fluoroscopy for accurate needle localization. 5. Multiple permanent X-ray records of the lumbosacral spine.

On XX/XX/XX, the claimant presented to XX. On examination he had positive lumbar facet pain and paraspinal spasm on palpation. ROM was limited. Gait was normal. Motor exam was normal. Reflexes: L4 patellar 0/3 bilaterally, post tib 1/3 bilaterally, S1 Achilles 1/3 bilaterally. Babinski and Clonus were negative. Sensory exam was normal. Straight leg raise was negative bilaterally. Assessment: 1. T11/12 disc herniation with stenosis and nerve root contact. 2. L5/S1 disc herniation with left S1 nerve root contact. 3. Left EMG S1 radiculopathy. Plan: Recommendation of Left L5/S1 TLIF. Continue medication with pain management doctor.

On XX/XX/XX, UR. Rationale for Denial: L5-S1 interbody fusion cannot be substantiated nor can spinal cord monitoring intraoperatively. This is a XX-year-old, who has an injury date of X/XX/XX. His treatment to date has included injections, physical therapy, and medications. He has back and leg pain. His MRI and electro-diagnostics support a left S1 radiculopathy due to discal pathology at L5-S1. Per report of XX on peer discussion, he stated there is a decreased intervertebral disc space but no instability, tumor, or infection. He would like to address all sources of pathology; however, I cannot concur with this request as there is no instability, tumor, or infection. Therefore, the surgical request cannot be supported.

On XX/XX/XX, UR. Rationale for Denial: The injured worker is noted with complaints of pain in the lower back with radiation to the leg. Examination shows tenderness of the lumbar spine, spasm, limited range of motion (ROM), and diminished reflexes. Reasonable non-operative treatments have been tried and failed. However, there is no detailed evidence of guideline-associated segmental instability at the requested level, and a psychosocial screen has not been provided. Therefore, this request is not medically reasonable or necessary at this time.

On XX/XX/XX, the claimant presented for follow-up of low back pain. The pain is described as being central in the Lspine and he feels like his legs go to sleep, particularly at night. He feels numbness in his legs as well, R>L, with weakness. The pain radiates down the lateral aspect of his leg. There is associated burning and tingling. He reported being in Physical Therapy which was not helping. He reported still having problems sleeping at night due to the pain. He is still not working. The medication does not help at all. He is tolerating Gabapentin, but it makes him a little sleepy. It was documented that he underwent B/L L30L5 MBBs on X/X/XX which provided some relief (50%) but was short-lived. He also underwent Left L3-L5 Medial Branch RFA on XX/XX/XX which provided some relief but he is still having pain to his right side. He is seeking to schedule the right side RFA now. The claimant reported his pain has been so bad that he has been taking 4-5 tablets of Norco and ran out a week early. VAS Pain without medication 7-8/10. On examination ROM was decreased with pain. Babinski and Clonus was negative bilaterally. Straight Leg Raise was normal bilaterally. Patellar DT was ¼ bilaterally. Achilles DTR was 0/4 bilaterally. Sensation was decreased on the left in the L5 distribution. Motor strength was 5/5 bilaterally except for EHL (L5) on the left was 4/5. There was also tenderness to palpation. Plan: Prescription of Norco increased. Schedule the right L3-L5 Medial branch RFA.

ANALYSIS AND EXPLANATION OF THE DECISION INCLUDE CLINICAL BASIS, FINDINGS, AND CONCLUSIONS USED TO SUPPORT THE DECISION:

The request for Inpatient L5-S1 transforaminal lateral interbody fusion (TLIF) post spinal fusion L5 to S1 and spinal monitoring and Inpatient hospital length of stay three (3) days is denied.

This claimant is currently dealing with lower back pain with radiation into his left leg. He has multiple levels of disc disease identified on MRI. His EMG-NC study identified left S1 radiculitis. The claimant has failed an epidural

injection and medial branch blocks.
The Official Disability Guidelines (ODG) supports spinal fusion in patients with one of the following conditions: spinal instability, fractures, infections, spinal deformity, tumors, or failure of two prior discectomies. The surgical candidate should complete a psychological screening prior to spinal fusion.
This claimant does not meet the required criteria for spinal fusion.

PER ODG:

Patient Selection Criteria for Lumbar Spinal Fusion:

(A) *Recommended* as an option for the following conditions with ongoing symptoms, corroborating physical findings and imaging, and after failure of non-operative treatment (unless contraindicated e.g. acute traumatic unstable fracture, dislocation, spinal cord injury) subject to criteria below:

(1) Spondylolisthesis (isthmic or degenerative) with at least one of these:
  (a) instability, and/or
  (b) symptomatic radiculopathy, and/or
  (c) symptomatic spinal stenosis;
(2) Disc herniation with symptomatic radiculopathy undergoing a third decompression at the same level;
(3) Revision of pseudoarthrosis (single revision attempt);
(4) Unstable fracture;
(5) Dislocation;
(6) Acute spinal cord injury (SCI) with post-traumatic instability;
(7) Spinal infections with resultant instability;
(8) Scoliosis with progressive pain, cardiopulmonary or neurologic symptoms, and structural deformity;
(9) Scheuermann's kyphosis;
(10) Tumors.

(B) *Not recommended* in workers' compensation patients for the following conditions:

(1) Degenerative disc disease (DDD);
(2) Disc herniation;
(3) Spinal stenosis without degenerative spondylolisthesis or instability;
(4) Nonspecific low back pain.

(C) *Instability criteria:* Segmental Instability (objectively demonstrable) - Excessive motion, as in isthmic or degenerative spondylolisthesis, surgically induced segmental instability and mechanical intervertebral collapse of the motion segment and advanced degenerative changes after surgical discectomy, with relative angular motion greater than 15 degrees L1-2 through L3-4, 20 degrees L4-5, 25 degrees L5-S1. Spinal instability criteria includes lumbar inter-segmental translational movement of more than 4.5 mm. (Andersson, 2000) (Luers, 2007) (Rondinelli, 2008)

(D) After failure of two discectomies on the same disc [*(A)(2) above*], fusion may be an option at the time of the third discectomy, which should also meet the ODG criteria. (See ODG Indications for Surgery -- Discectomy.)

(E) Revision Surgery for failed previous fusion at the same disc level [*(A)(3) above*] if there are ongoing symptoms and functional limitations that have not responded to non-operative care; there is imaging confirmation of pseudoarthrosis and/or hardware breakage/malposition; and significant functional gains are reasonably expected. Revision surgery for purposes of pain relief must be approached with extreme caution due to the less than 50% success rate reported in medical literature. Workers compensation and opioid use may be associated with failure to achieve minimum clinically important difference after revision for pseudoarthrosis (Djurasovic, 2011) There is low probability of significant clinical improvement from a second revision at the same fusion level(s), and therefore multiple revision surgeries at the same level(s) are not supported.

(F) *Pre-operative clinical surgical indications* for spinal fusion should include all of the following:

(1) All physical medicine and manual therapy interventions are completed with documentation of reasonable patient participation with rehabilitation efforts including skilled therapy visits, and performance of home exercise program during

and after formal therapy. Physical medicine and manual therapy interventions should include cognitive behavioral advice (e.g. ordinary activities are not harmful to the back, patients should remain active, etc.);

(2) X-rays demonstrating spinal instability and/or myelogram, CT-myelogram, or MRI demonstrating nerve root impingement correlated with symptoms and exam findings;

(3) Spine fusion to be performed at one or two levels;

(4) Psychosocial screen with confounding issues addressed; the evaluating mental health professional should document the presence and/or absence of identified psychological barriers that are known to preclude post-operative recovery;

(5) For any potential fusion surgery, it is recommended that the injured worker refrain from smoking for at least six weeks prior to surgery and during the period of fusion healing; (Colorado, 2001) (BlueCross BlueShield, 2002)

(6) There should be documentation that the surgeon has discussed potential alternatives, benefits and risks of fusion with the patient;

(7) For average hospital LOS after criteria are met, see Hospital length of stay (LOS).

ODG hospital length of stay (LOS) guidelines:
Discectomy (*icd 80.51 - Excision of intervertebral disc*)
Actual data -- median 1 day; mean 2.1 days (± 0.0); discharges 109,057; charges (mean) $26,219
Best practice target (no complications) -- *Outpatient*
Laminectomy (*icd 03.09 - Laminectomy/laminotomy for decompression of spinal nerve root*)
Actual data -- median 2 days; mean 3.5 days (±0.1); discharges 100,600; charges (mean) $34,978
Best practice target (no complications) -- *1 day*
Note: About 6% of discharges paid by workers' compensation.
Lumbar Fusion, posterior (*icd 81.08 - Lumbar and lumbosacral fusion, posterior technique*)
Actual data -- median 3 days; mean 3.9 days (±0.1); discharges 161,761; charges (mean) $86,900
Best practice target (no complications) -- *3 days*
Note: About 15% of discharges paid by workers' compensation.
Lumbar Fusion, anterior (*icd 81.06 - Lumbar and lumbosacral fusion, anterior technique*)
Actual data -- median 3 days; mean 4.2 days (±0.2); discharges 33,521; charges (mean) $110,156
Best practice target (no complications) -- *3 days*
Lumbar Fusion, lateral (*icd 81.07 - Lumbar fusion, lateral transverse process technique*)
Actual data -- median 3 days; mean 3.8 days (±0.2); discharges 15,125; charges (mean) $89,088
Best practice target (no complications) -- *3 days*

A DESCRIPTION AND THE SOURCE OF THE SCREENING CRITERIA OR OTHER CLINICAL BASIS USED TO MAKE THE DECISION:

- ☐ **ACOEM- AMERICAN COLLEGE OF OCCUPATIONAL & ENVIRONMENTAL MEDICINE UM KNOWLEDGEBASE**
- ☐ **AHCPR- AGENCY FOR HEALTHCARE RESEARCH & QUALITY GUIDELINES**
- ☐ **DWC- DIVISION OF WORKERS COMPENSATION POLICIES OR GUIDELINES**
- ☐ **EUROPEAN GUIDELINES FOR MANAGEMENT OF CHRONIC LOW BACK PAIN**
- ☐ **INTERQUAL CRITERIA**
- ☒ **MEDICAL JUDGEMENT, CLINICAL EXPERIENCE, AND EXPERTISE IN ACCORDANCE WITH ACCEPTED MEDICAL STANDARDS**
- ☐ **MERCY CENTER CONSENSUS CONFERENCE GUIDELINES**
- ☐ **MILLIMAN CARE GUIDELINES**
- ☒ **ODG- OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES**
- ☐ **PRESSLEY REED, THE MEDICAL DISABILITY ADVISOR**
- ☐ **TEXAS GUIDELINES FOR CHIROPRACTIC QUALITY ASSURANCE & PRACTICE PARAMETERS**
- ☐ **TEXAS TACADA GUIDELINES**
- ☐ **TMF SCREENING CRITERIA MANUAL**
- ☐ **PEER REVIEWED NATIONALLY ACCEPTED MEDICAL LITERATURE (PROVIDE A DESCRIPTION)**
- ☐ **OTHER EVIDENCE BASED, SCIENTIFICALLY VALID, OUTCOME FOCUSED GUIDELINES (PROVIDE A DESCRIPTION)**